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Page 11

University 101

Canadian Circumpolar Institute

Volume 49 Issue 14 | March 16, 2012 | www.ualberta.ca/folio

# Water panel wades into global debate

Geoff McMaster

Three water experts received honorary degrees March 1 in a special conferral ceremony at the University of Alberta's Timms Centre.

Sunita Narain, director general of the Centre for Science and Environment, Steve Hrudy, U of A professor emeritus in analytical and environmental toxicology, and Peter Brabeck-Letmathe, chairman of the board of Nestlé, were all recognized for their efforts to tackle one of the most urgent challenges of our time-access to safe,

"Each of these exceptional individuals is quite literally trying to change the world, and they are succeeding," said U of A President Indira Samarasekera. "Government policy has changed because of them. New farming methods are being adopted around the world, and much better environmental monitoring is going on in India and here in Alberta.

Water stress adds to the burden of disease. It destroys livelihoods and devastates agriculture.... If we do not get our water art and science right, then we will seriously jeopardize our common future."

Sunita Narain

A passionate water activist and winner of the Stockholm Water Prize, Narain has successfully galvanized action in India on the need for water security, using rainwater harvesting to augment resources and pollution control to minimize waste. She has been listed by the U.S. journal Foreign Policy as one of the world's top 100 public intellectuals.

Continued on page 2

# Breaking the silence



npus as part of The REDress Project, an art installation designed to bring awareness to Canada's missing or murdered Aboriginal women

# Newest CRC finds role as cultural intermediary

Michael Brown

₹he University of Alberta has been awarded a new Canada Research Chair, five renewals and one advancement worth a total of \$7.1 million, the federal government announced on March 13.

"The University of Alberta is delighted with these CRC renewals, advancements and new appointments, which involve individuals from a wide range of disciplines," said Lorne Babiuk, vice-president (research). "The support of the federal government, through programs like the Canada Research Chairs, continues to be a key factor in our country achieving its goals in becoming a global knowledge generator, resulting in innovation and enhancing Canada's economic leadership."

The new CRC was awarded to Gavin Renwick, who was named as Tier 2 CRC in design studies, a title that comes with a \$500,000 award paid out over five years. This designation is given to emerging researchers who are acknowledged by their peers as having the potential to lead in their field.

**L** Essentially, I am looking at hybrid ideas of how do we take First Nation ideas of living lightly upon the Earth-their traditional knowledge-and finding ways of combining that with cuttingedge environmental technology to create something that is better."

Gavin Renwick

Renwick, a professor in the Department of Art and Design and adjunct professor of human ecology, says his research focuses on working collaboratively with First Nation and rural communities to help envision sustainable and holistic design solutions that facilitate social, economic and environmental health and well-being, as well as cultural continuity, in the North

"Essentially, I am looking at hybrid ideas of how do we take First Nation ideas of living lightly upon the Earth—their traditional knowledge—and finding ways of combining that with cutting-edge environmental technology to create something that is better," said Renwick, who has spent the last 17 years working in the Northwest Territories.

Renwick is in the early stages of designing a building using modern and traditional techniques to facilitate the cultural continuity of one of Canada's most traditional people, the Dehcho First Nation near Trout Lake, N.W.T.

"[The Dehcho] see sustainable development as being their culture. We're now into the 21st century and [the Dehcho] still have a viable First Nation culture and language, and an ability to live with the land," said Renwick. "Considering 21st-century realities, I think it is fundamental that we reverse the knowledge flow and we begin to recognize that people who work intimately with the land have something

Renwick says as much as he is a researcher, he sees his role in the North as that of a cultural

Continued on page 2



**GUEST SUITES** SUMMER ACCOMMODATION



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# Immunologist receives cancer society grant

Folio Staff

University of Alberta immunologist has received the Canadian Cancer Society's inaugural Innovation Grant for his research looking at ways to harness the immune system in the fight against prostate cancer.

Kevin Kane received nearly \$200,000 for his work towards stimulating the body's own "killer cells" to destroy prostate cancer cells.

We know we have powerful cells within the immune system that are capable of eliminating tumours," said Kane. "So why not better direct them to eliminate cancer?"

Of the thousands of genes altered by prostate cancer, the immune system only targets a few. Kane and his research team developed a non-invasive screening system "to pick out the needles in the haystack." The screen will allow the researcher to identify the mutated genes that are being targeted by killer cells—genes that can then be tested for immunotherapy.

"If we can manipulate the immune system to better attack cancer, that would be far better and far more specific than trying to use chemotherapy drugs which are often not so specific and can have terrible side effects," said Kane.

His goal is to create a universal platform that identifies the right targets for killer cells to attack in prostate cancer—which, according to the Canadian Cancer Society, kills 11 Canadian men every day, more than any other cancer. Kane believes the screen could eventually be used to tailor immunotherapy for ovarian, breast and, possibly, lung cancers. Furthermore, the screen could potentially be directed at specific cancer gene targets that are unique to an individual—targets that are possibly the most relevant to their survival.

This year, the Canadian Cancer Society is committing more than \$4.5 million through the new Innovation Grant to 23 cancer researchers across the country. The grant was created to support unique



Kevin Kane is researching ways to better enable the body's immune system to join the fight against prostate cancer.

research that will help in the fight against all cancers. Kane is the only Alberta-based researcher to receive the Innovation Grant this year.

We need to continue to do hypothesis-driven research because it opens up opportunities for us to make more innovative steps later on," says Kane. "The Innovation Grant means we may get there faster, with respect to innovation that helps patients."

Continued from page 1

# \$1.7 M in CRCs come to U of A

Continued from page 1

intermediary, acting as a bridge between knowledge traditions.

'We need to level the playing field and create an equal dialogue between knowledge traditions and, through that equality, create something much stronger that can only generate positive, innovative solutions for 21st-century life," said Renwick. "In one sense, what I am doing is looking at how the physical space reflects cultural continuity and automony, and then looking at First Nation traditional knowledge and what it has to offer us in the south in an equal dialogue to create stronger hybrid solutions for sustainability."



**Gavin Renwick** 

Renwick came to the U of A 18 months ago from the University of Dundee in Scotland to be closer to the subject of his work and because he saw that the U of A is positioning itself to be a fundamental, educational institution for the Arctic.

What I like about the U of A is the potential of working across domains. I am in the Faculty of Arts, so I can now have dialogue with anthropologists and economists," he said. "All the issues we face are so complex that no one discipline can actually deal with them, so interdisciplinarity is fundamental, and the U of A is great at facilitating that."

Carole Estabrooks, a professor in the Faculty of Nursing, was advanced from Tier 2 to Tier 1, jumping her funding to \$1.4 million paid out over seven years. This award is given to researchers acknowledged by their peers as world leaders in their fields.

Estabrooks leads a program of research called Translating Research in Elder Care, which began in 2007 and is funded by the Canadian Institutes of Health Research. The goal of the program is to improve care for elderly residents in nursing homes by examining how the organizational environment affects the use of best practices.

"I hope my work will contribute to improving the quality of care and quality of life in the last months and years of life for the elderly in nursing homes, the majority of whom have dementia and who are among some of our society's most vulnerable citizens," she said.

Tier 1 renewals include Steven Kuznicki, CRC in molecular sieve nanomaterials; Jim Smiley, CRC in molecular virology; and Randall Weselake, CRC in agricultural lipid biotechnology.

Tier 2 renewals include Uwe Hacke, CRC in tree-water relations, and Simonetta Sipione, CRC in cardiac transplantation.

The U of A now has 92 CRCs (44 Tier 1 and 48 Tier 2) with a total value this year of \$13.6 million.

# Water panel wades into global debate

In her acceptance speech, and in a panel discussion following the conferral ceremony, Narain pointed out that in India, as in many developing countries, livelihood is often directly linked to scarce and inconsistent rainfall.

"Water stress adds to the burden of disease," said Narain, who was honoured with a doctor of laws degree. "It destroys livelihoods and devastates agricul-







(Clockwise from top) Steve Hrudy, Peter Brabeck-Letmathe and Sunita Narain were honoured by the University of Alberta March 1 for their contribution to the water debate.

ture.... If we do not get our water art and science right, then we will seriously jeopardize our common future."

Hrudy was recognized with an honorary doctor of science for his leadership in environmental health sciences and risk management, and for his contribution to a number of high-profile expert panels' including the Research Advisory Panel to the Walkerton inquiry a decade ago.

He argued that we live in a "misinformation age," especially concerning issues of water management. Many commonly held views about the risks of water contamination are simply wrong, he said, and that was nowhere more evident than during the Walkerton tragedy that killed seven and made 2,000 people ill from contaminated drinking water.

Much of the testimony during the Walkerton inquiry held that "once the water became contaminated, there was nothing the operators could have done to prevent the tragedy," he said. "That testimony was absolutely wrong, but it went unchallenged at the time."

Brabeck-Letmathe, also conferred with a doctor of laws, was recognized for his leadership in Nestlé's implementation of water management strategies. An active member of the foundation board of the World Economic Forum, he leads a worldwide project on

He argued that no "dogmatic or ideological approach" can provide solutions to a global crisis that sees one billion people without adequate access to water for their basic needs: "In many cases, where such approaches were applied, they made things even worse for those who suffer the most."

All three recipients elaborated on their positions during a panel discussion following the ceremony hosted by CBC's Diana Swain and guided by the lead question, who speaks for the water?

Brabeck-Letmathe said water is often wasted and taken for granted, especially in industry and agriculture, because it has not been assigned value.

"How can you accept, when we know there are shortages of water, that 60 per cent is being lost through leakages in developing countries, and 30 per cent in Europe," he said, adding that too much emphasis is placed on the supply side in discussions about solutions to water scarcity and not enough on demand and the search for less wasteful "water-wise" ways of

Narain underscored the conflict over access to water in India and other countries, pointing out that, in North America, the fight over the issue is more academic, happening in conferences and seminars. "But in my part of the world it is real. People get shot over it-people die over water. And the fight is over the allocation of water between agriculture and growing cities and industries."

She argued that a major hurdle in seeking technological solutions to water scarcity is the "arrogance of science and engineering" that fails to take local environments into consideration. "One of the biggest problems we have seen is a scientific profession that doesn't teach humility about nature.'

Hrudy said the Walkerton tragedy proved that "Canadians were then, and are still today, complacent about water. It's taken for granted, and people resist paying more for safe and efficient water-delivery service.

"There has to be a willingness to do the thing right," he said, echoing Brabeck-Letmathe's view that whether water delivery is public or private matters little. What does matter is that it's done "competently and smartly."

# Researcher finds concussions breed more concussions

f you have suffered a concussion through a sport or recreational activity, there is about a one-inthree chance you'll suffer a second or third concussion, say researchers with the University of Alberta.

Using data of emergency room visits in Edmonton, Don Voaklander, a professor in the School of Public Health, and graduate student Andrew Harris identified patterns among individuals reporting repeated head injury.

Voaklander's research, reported recently in the Clinical Journal of Sport Medicine, indicates that people with a previous head injury are nearly three times more likely to have an additional head injury. This likelihood increases to nearly seven times for those who have sustained two previous head injuries.

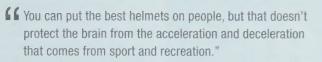
An increasing incidence of head injury spurred Voaklander, who is also director of the Alberta Centre for Injury Control and Research, to revisit the data to determine what

happened after a first head injury as reported.

"We know that in the last five years there has been more awareness of head injury and concussions," said Voaklander. "We wanted to follow up on the data to see if one possible concussion made people more susceptible to a second or third possible concussion."

"This study is unique because the data are gathered from the immediate community," said Harris, noting that this type of research typically focuses on university and professional athletes, not on sport- and recreation-related concussions in the general population. "These data are indicative of what is happening to the average Edmontonian."

"Unfortunately, we don't know the risk profile of the age groups," said Harris. "But we do know that, in the seven-to-13 age group, kids are still likely engaged in family activity and aren't taking the same risks as the 14-to-18-year age group."



Don Voaklander



Research done at the U of A has found the odds of sustaining a head injury related to skiing, snowboarding or sledding are nearly the same to that of playing football

The researchers note that the data may understate the problem of head injury, since it's not known how many head injuries go undisclosed.

Harris and Voaklander say concussion can occur no matter what the rules of a sport or recreational activity are or how well a person is protected. Research shows the greatest risk of head injury occurs in animal-related activities such as horseback riding, as well as playing rugby and operating an ATV. The odds of sustaining a head injury while skiing, snowboarding or sledding are nearly the same as when playing football.

"You have to think about the sport you play and where the energy is," explained Voaklander. "If you're playing hockey or football, you're reasonably well-protected with equipment, and the energy comes from your own body. If you're riding a bike, using an ATV or riding a horse, the energy is no longer coming from you, and you're no longer at ground level should you fall."

Head injury often occurs even while wearing a helmet, he adds, since the sheer force of impact can bruise the brain. "You can put the best helmets on people, but that doesn't protect the brain from the



acceleration and deceleration that comes from sport and recreation.

Based on the evidence, both researchers say there may be cause to push for further changes in sport and recreation. Voaklander says a number of U.S. states have implemented "return to play" laws. making it more difficult for people to get back to the playing field without first being assessed by a trained medical professional.

"Unfortunately, kids end up seeing professional players pushing the limit and playing through serious injury," said Voaklander.

# T-cell regulator may hold answer to autoimmune riddle of diseases



Troy Baldwin (left) and Alex Suen have found that a regulatory molecule in T-cells might hold the key to fighting auto

niversity of Alberta researcher Troy Baldwin is a step closer to understanding why the body's immune cells, called T-cells, some times attack perfectly healthy cells, causing autoimmune diseases like diabetes.

Baldwin, a researcher in the Department of Medical Microbiology and Immunology, and graduate student Alex Suen looked at a specific molecule, known as BIM, which is vital in regulating T-cell death. Baldwin explained that when BIM was removed from autoreactive T-cells, rather than being killed off and eliminated from the blood, the T-cells actually survived and were rendered inactive

Baldwin, whose study was published in the Proceedings of the National Academy of Sciences, says his

research also found there is a mechanism that controls T-cells beyond the reach of BIM. Looking specifically at the T-cells that target the pancreas, which is a cause of diabetes, Baldwin explains that the autoreactive T-cells that survived in the absence of BIM weren't able to kill the insulin-producing cells in the pancreas.

"Our future work is going to look at the mechanisms controlling these cells," said Baldwin. "Even though T-cells are present in the body and should be able to target, in this case, the pancreas and cause diabetes, they don't."

Baldwin says understanding why these cells don't target the pancreas and why they are inactive could lead to new therapies to control autoreactive T-cells and help people with autoimmune diseases.

Something is telling them not to become active," said Baldwin. "If we can figure out what that something is, we could then potentially use that information to try and either suppress cells that would normally become activated and cause autoimmunity or, vice versa, we could now take T-cells that are not active and make them more active."

Baldwin says cancer therapies, for example, are one instance where physicians want to boost T-cell response. "If we turn that suppressive mechanism off, then perhaps we can make a cell that wouldn't normally respond," he said.

The next step will be to begin searching for the other mechanisms that regulate T-cells.

"First we want to try and understand if there are other cells that are controlling this autoreactive population, or if it is something in the cells themselves that is preventing them from being active," said Baldwin.

"If we can break those control mechanisms, then we can understand how autoimmune diseases can progress," added Suen. "That will give us an idea of what to target to generate therapies to either try to prevent breaking that control or enforcing that control more strictly."



UNIVERSITY OF ALBERTA FACULTY OF EXTENSION

# Showcase and Conference Community-Engaged Research

FRIDAY, MAY 25, 2012; 8 am - 5 pm

Location: Corbett Hall, University of Alberta Main Campus

### You are invited to attend

You are invited to the Faculty of Extension's Centenary Year Showcase and Conference on Community-Engaged Research, hosted by Extension to highlight exemplary, community-engaged research.

Join us for an exciting day of presentations, discussions and networking focusing on how communities and universities working together can make a difference The event will start with a complimentary breakfast in Corbett Hall, II of A Main Campus, 8205-114 Street NW, Edmonton



Invited keynote speaker and international leader Dr. Barbara Holland will inspire us to consider making a difference through community-engaged research. Barbara is a consultant, author, and speaker, and she has advised more than 100 universities in five countries and helped start several new engagement associations and publications

Registration is free, but space is limited. Please register early

Dr. Barbara Holland, Keynote Speaker

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# Academic pension plan invites input

(finance and administration) and lan MacLaren, president, AASUA

s the University of Alberta's sponsor representatives of the Universities Academic Pension Plan (UAPP), we would like to update academic staff members on recent proposals developed and circulated by the UAPP. As you may know, the UAPP, which consists of sponsors from Alberta's four universities as well as the Banff Centre, has been reviewing the pension plan for the last 18 months. The overall aims of the group are to provide greater equity in terms of the value of the lifetime pension benefit amongst members, regardless of age

at retirement, to enhance the sustainability of the plan and to maximize the tax effectiveness of the pension.

At this time, these proposals are just that-proposals. They are being circulated among faculty associations for review and discussion. AASUA Council launched this discussion at its meeting on March 15. Please note that if UAPP sponsor representatives decide to move forward and seek approval on plan changes, all faculty association members will have a vote in the approval process. UAPP regulations state that any proposed changes to the plan require formal approval from a majority of sponsor institutions representing 75 per cent of UAPP members.

UAPP sponsor representatives are set to meet later this month to determine whether to proceed with obtaining approval for changes. If UAPP decides to go ahead, a member vote could possibly occur in late 2012 or early 2013. In the meantime, pension plan sponsors will be developing a comprehensive rollout plan and detailed resources to assist members in understanding the impact of the changes.

You can find detailed information on the proposed changes on Colloquy at www.ualbertablog.ca and on the AASUA website. We will continue to keep you abreast of any updates to this process through the coming months as further details become available.

# be going to seed

Ken Matthewson

anadian barley could make a move from your plate to your vanity thanks to researchers with the Department of Agricultural, Food and Nutritional Science who have discovered some innovative new uses for the ancient food grain.



Lingyun Chen (left) and her team have developed cost-effective household uses for barley.

Lingyun Chen, assistant professor in plant protein chemistry and technology, and her team of researchers have developed a costeffective method of extracting the protein from the raw grain of barley, one of Alberta's largest grain crops.

"When we analyzed the barley protein, we found some very interesting properties, one of the most interesting being that it serves as a very good emulsifier and encapsulation material, which we realized could have benefits for the personal care or food industries," said Chen.

Chen says barley protein has the ability to replace many existing emulsifying agents in a variety of food and cosmetic products. It can also be used to encapsulate many neutraceuticals (foods or parts of food that provide health benefits), concealing their occasionally unpleasant taste and odour and protecting them from deterioration before they are absorbed into the intestine.

Many personal care products, such as skin creams, hair conditioners and ointments, rely on emulsifiers in their formulation. These have traditionally been derived from animal products or, more recently, completely synthesized. Given emergent market trends towards natural, sustainable and organic products, Chen feels that these new applications for barley are exactly what consumers are looking for.

Chen's team also found numerous similarities between the barley protein and ingredients currently used in retail food products. "The barley protein has similar capacity to lecithin, which is a soy-based emulsifying agent commonly used in the food industry," said Chen. "But lecithin is very expensive. The production cost with barley is much lower."

Chen's research has already led to a number of patented technologies, resulting in a \$4.4-million investment from the federal government to help test and commercialize her new products. Additional support is being provided through the Alberta Barley Commission and Alberta Innovates Bio Solutions. Chen's position as the Alberta Barley Cereal Protein Chair is co-funded by the Alberta Barley Commission and the Alberta Crop Industry Development Fund.



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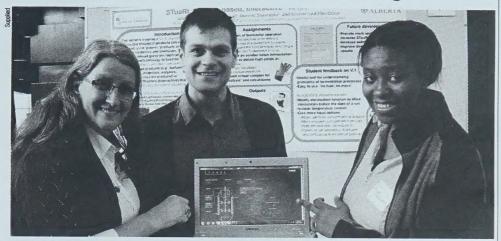
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# MARCH 12-15, 2012 festival of teaching

# Engineering professor helps pioneer new online teaching tool



Chemical and materials engineering professor Dominic Sauvageau, biological sciences professor Julia Foght (left) and PhD student Abigail Adebusuyi have developed a virtual bioreactor to help teach students about microbial biotechnology.

Richard Cairney

chemical engineering professor has teamed up with a microbiology professor to develop an innovative online teaching tool.

Dominic Sauvageau from the Department of Chemical and Materials Engineering, Julia Foght from the Department of Biological Sciences and PhD student Abigail Adebusuyi have created an interactive virtual bioreactor to help teach students about microbial biotechnology and its applications in industry.

Called Stirred Tank university of alberta Reactor training, or STuaRt, the web-based application simulates a large-scale bioreactor. Bioreactors are historically used in wastewater treatment and environmental remediation. The vessels are used to create optimal conditions to grow bacteria or enzymes and to promote different types of fermentation. Commercially, they are used in the manufacturing of a wide array of products, including

pharmaceuticals, biofuels and food flavouring.

Using the online version of the bioreactor, students are able to key in parameters and run virtual experiments quickly.

'You can see how different variables produce different outcomes," said Sauvageau. "You can find out quickly what happens when there is too much oxygen in the system or what happens if the pH level isn't controlled."

The project is based on Foght's idea to find a replacement for the university's own bioreactor, which is currently out of commission. She approached Sauvageau, who recently joined the Faculty of Engineering, at precisely the right time. Sauvageau teaches courses on chemical reactor analysis and his research focuses on microbial bioprocessing, and he was also thinking of developing a simulator.

Sauvageau, Foght and Adebusuyi, who is working on her PhD under Foght's supervision, worked with the U of A's Academic Information and Communication Technologies group to develop

STuaRt, with Sauvageau providing mathematical models.

Both Foght and Sauvageau agree that using a real bioreactor is a better learning experience, but using STuaRt is not a bad place to start.

"Dealing with reactors and the organisms you get out of them, you have to get a feel for it," said Sauvageau. "You have to get a feel for how living organism different stimuli. I would compare it to sport. You can teach a person about a sport but their performance improves if they play it."

A definite advantage of using STuaRt over a reactor is time and money, according to Foght. Experiments that would take two or three days at minimum using a bioreactor can now be handled in minutes or hours.

The three hosted a poster presentation on the new teaching tool at the opening of the U of A's annual Festival of Teaching.

STuaRt may also have research applications. Sauvageau and Foght hope to come up with a more robust version of the simulator that can be used as a research tool.

# Students and teachers find ways to inspire each other

Michael Davies-Venn

The Festival of Teaching, which was designed to showcase exemplary teaching, kicked off at the University of Alberta March 12 with faculty members and graduate students showcasing ways that teachers can inspire students—and students can inspire teachers.

f Part of my wish in any class that I go into is that I get challenged, too-that I learn from students just as much as they're learning from me. And as long as that's happening, it's working."

Michael Kennard

A common thread—the change in the traditional relationship between faculty and their students—ran through three TED Talk-inspired FoT Spots, each of which featured a faculty member and graduate student showcasing innovative teaching methods onstage.

Drama professor Michael Kennard, one of the presenters, says the way a researcher thinks about students is essential to building a relationship that promotes effective learning.

"I'm a firm believer that I'm on equal ground with every student, and I'm not above any student," said Kennard. "Part of my wish in any class that I go into is that I get challenged, too—that I learn from students just as much as they're learning from me. And as long as that's happening, it's working. If I put myself on this pedestal, above everybody, it just

"I'm a big believer that part of my job is to inspire every student, regardless of their level. And that means paying attention and caring about every

Billy Strean of the physical education and recreation faculty and his student Omar Amer presented a three-part showcase, The Dance of Engagement, that included a physical representation describing a relationship between an engaged student and teacher, excerpts from their emails

and a discussion on the impact they've had on each other.
"We explored how the relationship between teacher and student can be inspiring to both," Strean says. "Through this sort of demonstration, people may see different new possibilities for how they create their relationship with students—what might create more inspiration and engagement.

"When both students and professors are fully engaged, they're putting their energy into that relationship, and that makes for a far more effective learning environment."

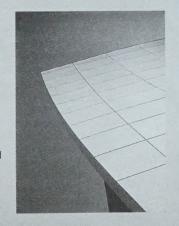
In her introduction to philosophy class at Augustana Campus, Janet Wesselius says she likes to take students to seniors' centres where they tackle questions about life with the more experienced. She says students return to the classroom with responses to questions such as, "Was life worth living during the Depression?"

"Then I will get them to talk about the responses in relation to what [existentialist philosopher Jean-Paul] Sartre, for example, may have said about such questions," said Wesselius.

These approaches, along with more than 30 others showcased at the fair, are examples of how the U of A strives to inspire and celebrate those who are teaching now and who will be teaching in the future, says Chancellor Linda Hughes. "The university is committed to fostering and sharing the spirit of innovation across our campuses," she said.

# Are You a

Congratulations to Rob Lake for correctly identifying the Sports Wall of Fame located in the Van Vliet Centre. For his correct identification, Rob has won a pen with a pullout map of the Centennial Centre for Interdisciplinary Science. The prize this week is one of the sought-after Butterdome butter dish, circa 2008. To win, simply identify where the object pictured is located and email your answer to folio@ualberta.ca by noon on Monday, March 25, and you will be entered into the draw.



# Popular earth sciences professor has come a long way

s he prepared material for his Festival of Teaching class, University of Alberta geochemist Kurt Konhauser compared his education to the schooling his current Science 100 students receive

"I got my undergrad education at the University of Toronto, where it was old-school, hands-off teaching," said Konhauser. "Only in my fourth year could I put the content of all

my science courses into a big picture of what science is. But first-year science students here get a cohesive picture of all the science right from the get-go.

For his FoT class in Earth Science on March 15, Konhauser will take his 30 Science 100 students back to the earliest days of this planet. "My Science 100 course looks at the environment

when life first arose—the chemistry of the oceans, to

the physics at play with meteorites bombarding the planet," said Konhauser. "It ties together a lot of disciplines."

Konhauser is a great believer in PowerPoint presentations, which he says give students the best visual representation of the concepts and allows them time to listen rather than transcribing notes off a whiteboard.

Konhauser's teaching style has evolved since his first class in front of first-year students a few years ago.

"I sat in on other lectures and took in visiting speakers to get a feeling for how others transfer their knowledge," said Konhauser, adding that research helped shape his teaching goals.

Instead of just teaching for the entire 50 minutes, we have discussions, and my focus for the students is that they take away concepts of Earth science, not just bullet points of facts."

# Ink jumps off the page during Broadus lecture

Geoff McMaster

ontrary to popular belief, the true genius of Johannes Gutenburg was not the printing press for which he is most often given credit. Both the Chinese and the Koreans had come up with versions of the press before him anyway, complete with moveable type.

What made Gutenburg's invention truly innovative was the oil-based ink that adhered to type and was celebrated for its exceptional blackness and longevity. No one has been able to duplicate the precise formula since, but rumour has it Gutenburg's own urine was the secret ingredient.

Such tantalizing revelations are the stuff of English professor Ted Bishop's forthcoming book, *The Social Life of Ink*, which he previewed March 13, 15 and 16 during the annual Edmund Kemper Broadus Lectures, a three-part showcase series hosted by the Department of English and Film Studies.

Bishop has been researching his "commodity biography" for about five years, travelling to Texas, Budapest, Buenos Aires, Paris, Geneva, Istanbul and various sites in China teasing out the source of this storied material embodiment of the written word and graphic image, as well as the thousands of recipes used to conjure it up.

"Ink always had an element of the local to it, and throughout the 19th century, big companies guarded ink recipes as jealously as software is guarded today," said Bishop. Even Shakespeare, he says, would likely have mixed up his own home recipe before sitting down to pen *Hamlet*.

Partly funded by the Social Sciences and Humanities Research Council, *The Social Life of Ink* aims to trace the uses and significance of ink through the ages, from the art of the Chinese ink stick which reached its zenith during the Ming dynasty, to the world's oldest Qur'an of the 10th century, to today's common ballpoint pen.

Beyond providing fodder for a plethora of amusing anecdotes, however, Bishop says ink and how it's used offer "a good index to the character of a society."

In the Western world, for example, good handwriting had, until recently, long been sign of education and cultivation. Today children in school no longer learn cursive writing, and ink has become largely invisible, argues Bishop. We tend to see right past it to the concepts behind, and in the digital world, it could be said ink has no material existence at all.



English professor Ted Bishop traces the historical flow of the written word's material embodiment through the ages.

"I realized my whole career is defined by ink," said Bishop. "I've spent my life reading it, writing with it, yet I never thought about it."

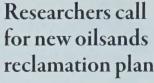
"We have a kind of utilitarian attitude towards the word that perhaps other cultures don't."

The Qur'an has only within the last century been mass-produced, since their hand-made construction was considered part of their sacred authenticity.

"And students I talked to in China lament the fact they only take calligraphy until Grade 12 now. They feel something has been lost." Throughout Chinese history, ornate ink sticks, some meant only for show, were considered signifiers of affluence, privilege or even decadence.

Bishop's first two Broadus lectures examined the fascinating intrigue around the invention of the ballpoint pen in the 1940s, then progressed backwards to expound on ink's history and social significance.

In the final session, Bishop taught audience members how to make their own ink—grinding pigment-loaded gall nuts (small growths that appear on oak trees used to produce the *Dead Sea Scrolls*), and mixing with water and gum arabic for adhesion.



Brian Murph

Alberta researchers that includes ecologist David Schindler has assessed the ecological fallout from current programs to reclaim land mined by oilsands producers and found the governmentapproved plans will result in a major loss of wetland habitat.

habitat loss and the transformation of a landscape the size of Rhode Island from one environment, a wetland, to another."

David Schindler

"This is a story about habitat loss and the transformation of a landscape the size of Rhode Island from one environment, a wetland, to another," said Schindler.

The two other members of the U of A team are lead researcher Rebecca Rooney and co-author Suzanne Bayley. Rooney says the most significant problems stem from the fact that current vegetation in the oilsands production area will be replaced with other species of plant life, dramatically altering the ecology.

The landscape is dominated by environmentally sensitive peatlands, a boggy terrain containing dead organic matter that naturally captures and stores carbon pollution.

"The oilsands operators plan to replace the existing wetlands with much drier forest landscapes," said Rooney. "The replacement forest would be incapable of storing the same amount of carbon."

The researchers say land-use decisions have not taken into account the importance of peatlands to carbon storage. The research analysis suggests that carbon-storage loss caused by peatland conversion could be equivalent to seven years' worth of carbon emissions caused by mining and upgrading.

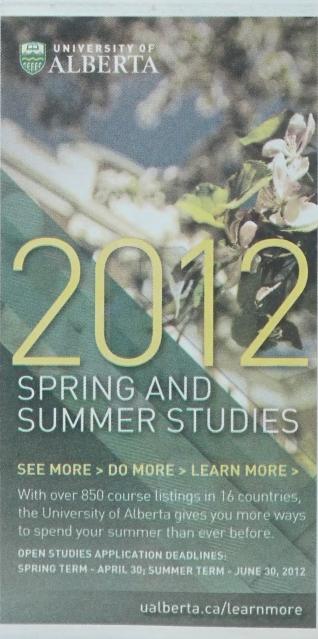
These losses have not been quantified before and should be included with the already high estimates of carbon emissions from oilsands mining and bitumen upgrading, the researcher says.

Bayley says Alberta's established wetland policy, which is an interim program, only applies to the southern half of the province. "We have no protection for the wetlands in the northern part, where oilsands mining takes place," she said.

The researchers say the landreclamation program must be rigorously assessed to fairly evaluate the costs and benefits of oilsands mining in Alberta and the impacts on natural capital and ecosystem services.

The U of A research was published March 12 in the journal Proceedings of the National Academy of Sciences.





esides attacking North America's lodgepole pines, a combination of climate change and the mountain pine beetle are threatening to wipe out the remaining population of Alberta's whitebark pine—a tree endangered across North America.

Areas that were historically climactically unfavourable to the beetle are becoming better for them, even at higher elevations and northern latitudes in Alberta."

Evan Esch

Research conducted by Evan Esch for his master's thesis shows that temperatures are rising in the cold mountain elevations where the whitebark pine grow, creating ripe conditions for the destructive pine beetle to spread.

The tree species has already been decimated by white pine blister rust, a fungal infection carried from Europe 100 years ago, making for a "devastating one-two punch," said Esch, whose research is based in the

University of Alberta's Department of Renewable Resources.

\*There are a small number of trees that have resistance to the fungal disease, but we are concerned



Evan Esch has been tracking the destruction of Alberta's whitebark pine by the mountain pine beetle.

that the mountain pine beetle will kill them off. Areas that were historically climactically unfavourable to the beetle are becoming more hospitable for them, even at higher elevations and northern latitudes

The tree grows in high elevations along the Rocky Mountains through to the coastal ranges in

western North America, including regions of Alberta, British Columbia, Montana, Idaho, Washington and California. Whitebark pine can live up to 1,000 years. It provides nutritious seeds crucial to the diet of birds. black bears and grizzly bears and is often the last species at the treeline, where it regulates snow melt and stabilizes shallow subalpine soils in the mountains.

Esch studied the life history traits of the mountain pine beetle in whitebark pines, exploring the question of how well the insect reproduces in this type of pine. "Even though the tree isn't as wellsuited to the beetle here because of Alberta's cooler climate, the insect is still capable of killing whitebark pines and will still produce large broods in the oldest, most developed of these trees," Esch said.

"In both the short and long term, it means the mountain pine beetle will kill more of these trees."

Whitebark pine has been listed as endangered by the Committee on the Status of Endangered Wildlife in Canada.

A recent survey of the whitebark pine in Alberta found white pine blister rust in 98 per cent of stands examined and indicated that 60 per cent of the trees were either already dead or infected and dying.

Esch's findings will help improve forest management practices by

showing that cutting and burning of beetle-infested whitebark pine should focus on trees with the largest diameter.

Though he grew up as a city boy, Esch, 26, felt drawn to studying the problems of the forest and found the plight of the whitebark pine compelling. "The notion that this rugged, remote tree could go extinct in my lifetime is startling, since I think of the Canadian wilderness as an endless sea of trees. However, the feeling that my work could contribute to the

conservation and recovery plans for this species definitely made all those long days and nights in the lab easier.

Esch's work was funded through grants from the Natural Sciences and Engineering Research Council of Canada, the Alberta Conservation Association, the Foothills Research Institute and Alberta Parks. It's a collaborative project involving the University of Alberta, Canadian Forest Service and Alberta Sustainable Resource Development.

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# Golden Bears rink captures world junior curling crown

Matt Gutsch

n Alberta-based team of four University of Alberta students has claimed Canada's first junior men's world title since 2007.

Engineering student and Golden Bears curling skip Brendan Bottcher led his Canadian junior team to a 10-4 win over Sweden in the gold-medal game March 11 at the world junior men's curling championship.

The Edmonton-born skip needed only eight ends to wrap

up the world title with his team-third Evan Asmussen, second Landon Bucholz and lead Bryce Bucholz. The team, which won the Canadian junior title in February, is made up entirely of university student athletes from the Golden Bears curling program, which trains out of the Saville Sports **L** It feels just amazing to be world champion. We've been curling all our lives to have a chance at something like this, and it's amazing to have gotten here and to win it."

**Brendan Bottcher** 

Centre on the U of A's South Campus. Sweden made the gold-medal game a two-point game with a single in the sixth end, but Canada put the game away with five points in

"It feels just amazing to be world champion," Bottcher said after the game. "We've been curling all our lives to have a chance at something like this, and it's amazing to have gotten here and to win it.'

"This team has been amazing and they've made my job easy. This means that a lot of work we've put in this year, and in years past, has paid off for us," he added.

The team won its first Canadian junior title Feb. 12 in Napanee, Ont. On Feb. 18, Bottcher skipped the Golden Bears senior team to a western regional qualifying tournament victory in Winnipeg.

Bottcher will now lead the Golden Bears senior team-Mick Lizmore, Brad Thiessen and Karrick Martin-in the CIS/CCA championship tournament March 14-18 at Brock University in St. Catharines, Ont. II

# Filmmaker searches for the perfect runner



Niobe Thompson made a documentary film to help answer questions about why running

Geoff McMaster

he idea for Niobe Thompson's latest documentary film was born of a personal crisis, of sorts.

The local award-winning filmmaker and research associate with the U of A's circumpolar institute was starting to feel pain in his knees when he ran. Since running had always been his escape from the stresses of life, a way to achieve mental and physical balance, he worried he might have to give it up if he didn't find a solution.

Thompson's search for relief led him to Larry Bell at the U of A's Canadian Athletic Coaching Centre. Bell works with top-level athletes across Canada and has assisted Olympic teams for the last two decades. A practising chiro-practor who had suffered from arch problems himself, Bell couldn't help but notice that African runners. many of whom grew up running barefoot, didn't have the common running injuries we see in the developed world. They also seemed to have a competitive edge over runners from elsewhere.

So the first thing Bell did was scrap his orthotics. He began rebuilding his foot strength from the ground up, as it were, with considerable success. Thompson followed suit, scaling back on shoe support and learning to land on his forefoot rather than his heel, drastically reducing his own knee pain.

That personal journey convinced Thompson, who owns Clearwater Media with distinguished U of A alumnus Tom Radford, that the time was right for a documentary film examining how human beings evolved to become the "perfect runner" and to what degree contemporary life may have compromised that evolution. The result is

The Perfect Runner, which screened March 14 at Edmonton's Garneau Theatre before airing March 15 on CBC's The Nature of Things.

'Human beings are nature's perfect endurance-running animal," said Thompson. "In a hot, African environment, we can outrun any animal around us. We can run them to exhaustion."

66 Human beings are nature's perfect endurance-running animal. In a hot, African environment, we can outrun any animal around us. We can run them to exhaustion."

Niobe Thompson

The question, he said, is "in this modern world, where we sit behind a computer and drive long distances every day, do we have anything in common with our ancestors, who lived on the savannah, were huntergatherers and used hunting as a way of getting food?"

The Perfect Runner includes stunning slow-motion footage of athletes, captured with a camera that shoots as many as 4,000 frames per second. Thompson and his crew spent time with elite runners in Ethiopia and reindeer herders in the Arctic. As the film's host, he also filmed himself taking on the gruelling 24-hour Canadian Death Race in Grande Cache. He lasted about 15 hours with an ankle sprain before throwing in the towel.

For Clearwater Media, The Perfect Runner is yet another example of a major film project spawned by U of A research. Previous films

include the Gemini-award winning The Code Breakers, Inuit Odyssey and Tipping Point: The End of Oil.

"The U of A never fails to bring to us great stories that we can bring to life on film," said Thompson, "and they're right here on our doorstep.

"I was surprised to learn that the CACC [Canadian Athletic Coaching Centre] is the centre in North America for training athletics coaches. It is the place where the research is concentrated and disseminated—I couldn't believe it."

Thompson was also delighted to find out that the centre's director, Jim Denison, is the biographer of the most successful distance runner in history—Haile Gebrselassie of

But it's Bell's research, and especially that of human evolutionary biologist Daniel Lieberman at Harvard University, that has fuelled a revolution in the science of running, debunking decades of misguided assumptions.

Most of us run in ways that could be damaging our bodies, and the running shoes we're encouraged to buy play a big part in that," said Thompson. That's because cushioning only invites heel striking, the principal cause of running injuries, which are rarely faced by Africans who run hard but can't afford the latest Nike product.

"Almost without exception, elite distance athletes that reach the very top grew up on farms, poor and in bare feet or sandals," said Thompson. "And the life they had through the first 10 or 15 years was a perfect life for building a whole

When Larry Bell starts to work with an elite athlete at the university, he's trying to condition them, but at the same time he's trying to compensate for all the artifacts of a sedentary life.

Thompson says the main takeaway concept from his film is that we need to flip our notion of extreme behaviour. "Because we sit at desks and live in comfortable urban environments, we think of extreme behaviour as running down trails doing the kind of things you see me doing in this film.

But in terms of our evolutionary past and what our bodies need to be healthy, it's extreme to be sitting, not running over mountain peaks. It's normal to have calluses on our feet and walk and run 10 to 15 kilometres a week." In



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Kyle Whitfield (Research and Scholarship)

Erin Ryan-Walsh (Excellence in Graduate Studies)

We thank you for your inspiration and wish you continued success in this noble pursuit.

# Medical researchers team up with inner-city organizations to write the book on health

edical researchers from the Faculty of Medicine & Dentistry have helped create a booklet to educate inner city residents about when to seek medical attention and where they can get the help they need.

Over the past year, two University of Alberta researchers have worked with a group of inner-city residents and staff from Streetworks, a non-profit program operated by inner-city agencies, to create a mini publication called I'm Sick, Now What?!

The booklet explains when it is appropriate to go to an emergency room and when it's appropriate to visit a walk-in clinic or family doctor's office, instead. It also explains what inner-city residents need when they see a doctor, what to expect during an appointment, why various tests are needed, the roles of different people in the health-care system and proper etiquette. A few different scenarios describing common health problems are outlined, too.

U of A researchers Ginetta Salvalaggio, a practising family physician and researcher with the Department of Family of Medicine, and Kathryn Dong, an emergency medicine physician and researcher in the Department of Emergency Medicine both see inner city patients routinely in their central Edmonton clinical practices and have worked on various initiatives to improve care for inner-city residents.

Salvalaggio says she thinks the booklet "has made a difference because it gave people a tool to talk about how to get the health-care help they need.

Les Umpherville, an inner-city resident and an outreach worker

66 Most of the clients we surveyed were happy to see we were concerned about how they felt, and what they thought were important issues in regards to how the health-care system treats them."

Les Umpherville



with Streetworks, says the booklet has received positive feedback. Before it was developed, people living in the inner city were surveyed to see what they needed.

"Most of the clients we surveyed were happy to see we were concerned about how they felt and what they thought were important issues in regards to how the health-care sys tem treats them," said Umpherville.

"Overall, the development of this booklet was a great success. Community residents are saying they are glad something like this came out because it gives them good informa-tion about how to go to doctors' offices and hospitals."

A second part of the clinical research project focused on better educating residents and emergency and family physicians via workshops about a system designed to assess addiction in family and emergency medicine settings.

The system, called Screening, Brief Intervention and Referral for Treatment, helps physicians determine if patients have addictions issues by asking a few simple questions. Doctors can then tell patients whether their drug or alcohol use is considered too high or appropriate, and what the health consequences would be if the substance use continued at the

The workshops also arm physicians with contact information for various community resources for addictions issues.

"Addictions have a huge burden on individuals and society in regards to increased mortality and health-care costs, in general," said Salvalaggio. "People who suffer from addictions don't get the health care they need on a timely basis. They spiral to more serious conditions. More intervention is needed through programs like this.'

The pilot project, which focused on the booklet and physician workshops, received \$250,000 in funding over two years. It was funded by the former Alberta Alcohol and Drug Abuse Commission and administered through Alberta Innovates -Health Solutions in partnership with the Alberta Family Practice Research Network with the Alberta Family Practice Research



# Call for Consultation

By the Dean Review Committee. Faculty of Nursing

Dr. Molzahn's current term as Dean, Faculty of Nursing will end on June 30, 2013, and she has indicated she will seek a second term in office. In accordance with University regulations, a Review Committee has been established.

At this point, the Review Committee is calling for opinion on the state of the Faculty of Nursing under the leadership of the current Dean. All input must be in writing and signed, or sent by e-mail. Members of the community may ask the Provost to have their input circulated to the committee without attribution. Individuals are urged to contact members of the Committee, or write to me as Chair, to express their views on priorities of the Faculty, current issues, and the future direction of the Faculty. All feedback may be shared with the Review Committee. In order to facilitate the Committee's work, please submit your comments by Wednesday, April 4, 2012.

Specifically, the Committee is interested in the following:

- 1) Leadership ability to provide a vision and direction for the Faculty and achieve its strategic goals;
- 2) Management fairness, balance and effectiveness in decisionmaking affecting the direction of the Faculty and effectiveness in setting priorities and dealing with issues;
- 3) Personnel Management issues dealing with the recruitment and retention of staff, as well as the administration of all personnel within the Faculty:
- 4) **Contributions** the contributions of the Dean within the Faculty, the University, the Community (including alumni), and professional
- 5) **Development** the success of the Faculty in achieving its goals with resources available and the effectiveness of the Dean in seeking outside funding through fund development and advancement
- 6) Communications the effectiveness of both internal and external communications:
- 7) Other matters.

In addition, a 'Public Forum' will be held on Wednesday, March 28, 2012, from 12:00 to 1:00 p.m. in Room 1-190 Edmonton Clinic Health Academy (ECHA) where Dean Molzahn will discuss her vision of the Faculty of Nursing for the next five years. Dean Molzahn's review is based on the position description in effect at the time of her appointment; that description may be accessed online at http://www.provost.ualberta.ca/Information.aspx.

Your views are important and we are grateful for your assistance. Please forward your comments to the address or e-mail below or to any member of the Dean Review Committee (contact information

Carl G. Amrhein Provost and Vice-President (Academic) Chair, Dean Review Committee 2-10 University Hall University of Alberta Edmonton, AB T6G 2J9 E-Mail: provost@ualberta.ca

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# Safety in the kitchen begins with protective clothing

Bev Betkowski

ooks, get into the kitchen and roll down your sleeves! A study by a devoted student foodie at the University of Alberta shows that ill-fitting uniforms are one of the main hazards for injury for commercial chefs working their magic in bustling kitchens.

Using a focus group of culinary students to conduct a qualitative study, Briana Ehnes explored kitchen textiles and safety for a fourth-year class project in the U of A Department of Human Ecology.

A multitude of designer cookbooks and TV networks devoted to the art of cuisine glamorize the image of a chef in a pristine white jacket turning out a fancy entree or making goat's-milk ice cream. But the hazards presented by the typical chef's whites aren't very appetizing, Ehnes says.

'Protective clothing in the food service industry isn't a given, especially with the culinary arts," she said. "It's an odd paradox, when you think of how popular the art of fine dining and cooking has become."

As a foodie herself, Ehnes counts herself lucky that she's not exposed to the busy chaos of a commercial kitchen and hasn't sustained injuries as she dabbles in her favourite hobby at home.

"It seems to be an area that is overlooked," she said, noting there is little scholarly research on protective wear in the typical restaurant or institutional kitchen. Some work has been done on technologies to prevent the transmission of harmful



Briana Ehnes says there are very real dangers in the kitchen and that protective clothing, worn properly, does serve a purpose

pathogens from uniforms to food, but the actual safety of the chef's jacket seems to go unquestioned.

For her research, Ehnes queried student chefs about their uniforms, their comfort in the workplace and whether they'd already been injured through their work (all said they had been). She supplemented her work with photos of how they wore their sometimes-bulky clothing.

"I wanted to find out whether current uniforms are meeting the needs of cooks in the industry. Can improvements

One of her study's main findings was that burns and cuts on hands and forearms were common because chefs often roll up sleeves that are too long and loose. The survey also revealed the importance of non-slip shoes to kitchen safety and that one-size-fits-all uniforms are ineffective.

At the top of their wish lists, Ehnes found the aspiring chefs longed for two things in particular: a specially designed sports-type shoe to navigate slippery, crowded kitchen floors, instead of the current clog design; and uniforms that weren't too loose-fitting for the men or too tight at the hips for the women—both common complaints.

Ehnes feels that kitchen wear has a long way to go.

"It is clear that there are very real dangers in the kitchen and that protective clothing does serve a purpose. From the discussions we had in my study about non-slip shoes alone, it is evident that there are measures in place to try and protect workers against common injuries. But what was most obvious was how little the uniform has evolved to try and protect against these injuries in the most effective and most comfortable way possible."

Ehnes recommends that chefs roll down their sleeves but added "the sleeves must be of the proper length when rolled down." She recommends adding snaps or button closures to cuffs, making each size of uniform with two sleeve lengthsregular and short—and getting data from other workers in the kitchen, such as meat cutters, as effective steps toward helping

# **UNIVERSITY OF ALBERTA UNIVERSITY GOVERNANCE**

# GFC COMMITTEES: ACADEMIC & SUPPORT STAFF NEEDED

The terms of office for a number of academic and support staff members serving on General Faculties Council (GFC) Standing Committees, Appeal Boards and committees to which GFC elects members will expire on June 30, 2012. The GFC Nominating Committee (NC) is seeking academic and support staff members to fill the following vacancies for terms normally three (3) years in length, beginning July 1, 2012.

Committee	Staff Vacancies	Meeting Times (normally monthly)
ACADEMIC PLANNING COMMITTEE (APC): GFC's senior committee dealing with academic, financial and planning issues.	ONE academic staff member (Category A1.0) ONE non-academic staff member (Category B1.0) ONE academic staff member at-large (who is a Department Chair)	2:00 pm/twice monthly, Alternating Wednesdays
ACADEMIC STANDARDS COMMITTEE (ASC): GFC committee dealing with admissions, academic standing, transfer and examination policies and other related issues.	ONE academic staff member (Categories A1.1, A1.5 or A1.6)	9:00 am/3 <sup>rd</sup> Thursday (to be confirmed)
CAMPUS LAW REVIEW COMMITTEE (CLRC): Reviews Code of Student Behaviour, Code of Applicant Behaviour and Residence Community Standards.	ONE academic staff member (Categories A1.1, A1.5 or A1.6) ONE academic staff member (Category A1.0) who is a former Associate Dean, Discipline Officer (DO) or University Appeals Board Chair ONE staff member (Categories A1.0, A2.0 or B1.0)	9:30 am/4 <sup>th</sup> Thursday (to be confirmed)
COMMITTEE ON THE LEARNING ENVIRONMENT (CLE): Promotes an optimal learning environment in alignment with guiding documents of the University of Alberta.	TWO academic staff members (who are Associate Deans or Associate Chairs, Teaching and Learning, or equivalent)	2:00 pm/1st Wednesday
FACILITIES DEVELOPMENT COMMITTEE (FDC): Recommends on planning and use of facilities, proposed buildings, and parking and transportation facilities.	TWO academic staff members (Category A1.0) with no more than one representative from any Faculty ONE support staff member (Category B1.0)	1:30 pm/4 <sup>th</sup> Thursday
UNDERGRADUATE AWARDS AND SCHOLARSHIP COMMITTEE (UASC): Approves new awards for undergraduate students including selection and eligibility criteria.	TWO academic staff members (Category A1.1, A1.5 or A1.6)	2:00 pm/2 <sup>nd</sup> Tuesday
UNIVERSITY TEACHING AWARDS COMMITTEE (UTAC): Adjudicates the Rutherford Award for Excellence in Undergraduate Teaching, the William Hardy Alexander Award for Excellence in Undergraduate Teaching, The Provost's Award for Early Achievement of Excellence in Undergraduate Teaching, and the Teaching Unit Award.	TWO academic staff members (Categories A1.1, A1.5 or A1.6) with no more than one representative from any Faculty	Normally three times a year (October, April, and June)
GFC ACADEMIC APPEALS COMMITTEE (AAC) / UNIVERSITY APPEAL BOARD (UAB): AAC hears and decides student appeals regarding academic standing. UAB hears and decides student appeals and applicant appeals regarding disciplinary decisions made under the Code of Student Behaviour or Code of Applicant Behaviour.	AAC: ONE academic staff member (Categories A1.1, A1.5 or A1.6 or on post-retirement contract) on the Panel of Chairs ONE faculty member (Categories A1.1, A1.5 or A1.6 or on post-retirement contract) on the Panel of Faculty members UAB: TWO academic staff members for the Panel of Chairs	Normally 4 to 5 hearings per year. Hearings scheduled as needed Mon to Thurs; normally start anytime between 3:00 pm- 5:30 pm, and typically last 3-5 hours.

Staff Application forms should be completed and returned to University Governance by Monday, March 26, 2012 and include a brief biographical sketch (max. 150 words). Staff Application forms are downloadable at the University Governance website <a href="https://www.governance.ualberta.ca">www.governance.ualberta.ca</a> (or, by navigating to University Governance, General Faculties Council Tool-Kit). Forms can also be pick-up in-person at University Governance, Room 3-20, University Hall.

For a comprehensive listing of all GFC committee memberships and terms of reference, staff members are encouraged to visit the University Governance website. For more information, please contact: Ann Hodgson, Coordinator to the GFC Nominating Committee (NC), at 492-1938, or by e-mail: ann.hodgson@ualberta.ca.

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HI-RISE CONDO Adjacent to U of A, 11027 - 87 Avenue. Huge 1 bedroom (1,034 sq. ft.) hi-rise condo. \$1,425 includes 8 appliances, pool, utilities, underground parking. Available occupancy May 1st. 780-430-6797, bubel@telusplanet.net.

STRATHCONA Fully furnished, 3 bedrooms, 3 bathrooms, study, sewing room, double garage, 1913 beauty, close to U of A, river, Whyte. Sabbatical rental, mid December 2012 – June 30, 2013. 780-433-8330. \$2,500/ month.

MAIN FLOOR OF CAPILANO HOME Available April 15, comfortable, clean 1,200 sq ft, 3 bedroom, main floor of Capilano home. \$1,440/month. Separate temperature control each floor/separate entrances. Shared washer/dryer, utilities, yard. Quiet location, close to bus (20 mins to U of A), shopping, river valley trails. Furnished/unfurnished/linens/dishes available. able. Small dog considered. 780-437-0073.

BELGRAVIA May 1st occupancy. 3 bedroom house in south Belgravia. \$2,550/month. Dave Richards 780-886-6005.

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# Canadian Circumpolar Institute points U of A compass to the North

Michael Brown

Formed in 1990, the Circumpolar Institute is the current incarnation of the U of A's long-standing academic interest and leadership in northern research.

History and geography have given the U of A a special relationship with the North and its people. Some facet of northern research has been conducted at the U of A almost since its inception. Unfortunately, these studies were solo efforts, tucked away in labs throughout the school's campus and going largely unnoticed.

That all changed with the formation of the U of A's Boreal Institute for Northern Studies in 1960. The Boreal Institute was a pioneer in multidisciplinary research, designed to foster northern studies collaboration across all academic departments. Its reach was modest by today's standards. The Arctic's environmental issues were just a glint in the world's eye in those days, and what was considered "North" didn't extend much further than the university's backyard.

On July 1, 1990, the Boreal Institute for Northern Studies was renamed the Canadian Circumpolar Institute. The renaming was symbolic of many changes in the institute and a re-invigoration of northern research at the U of A. Gaining momentum over the next decade, the CCI was pushed over the top in 2004, when the university approved a new northern research strategy as part of its academic plan, *Dare to Deliver*, which encouraged greater collaboration on northern research and expanded the university's already formidable presence in the North.

4 You can go into small northern communities across northern Quebec, Nunavut or the Yukon and people know the CCI and the University of Alberta because of the CCI."

David Hik

Reporting to the vice-president of research, the CCI, under the guidance of its acting director David Hik, has a mandate to promote and develop U of A participation in core research and education, and in regional, national and international partnerships. Hik says the institute acts as a focal point for the 50 to 70 researchers and 200-plus grad students in different faculties who are active in northern research and training throughout the circumpolar regions.

"The CCI helps to promote northern education and training, advancing northern research capacity and forging partnerships and collaborative networks that are so important in adding value to the work that any individual team would do," said Hik. "Think of the CCI as sort of a connector for different initiatives and different areas of research across disciplines and within disciplines. When people want to know something, it is good to have a place to come for people to discuss all the different perspectives."

The four areas of the U of A's northern expertise are the impact of environmental change, including climate change;

University 101

social and cultural advances and adaptation of Arctic communities; the health and wellness of northern communities, physical, social and cultural; and northern resource and economic development.

"All of these are not independent of each other," said Hik, explaining that the plight of polar bears, for example, touches research done in each of the CCI's four areas of strength. "In the end, the CCI includes a lot of researchers who have a significant impact on how the world views and questions change in the polar regions."

Benefits of the CCI include some centralized administration; memorandi of understanding with schools across the North; the Canadian Circumpolar Press, which carries more than 100 titles, many of which are produced in partnership with northern communities; and the world-renowned Circumpolar Library, which carries more than 400,000 items.

Nonetheless, Hik says the biggest advantage of being associated with the CCI may be its good name.

"You can go into small northern communities across northern Quebec, Nunavut or the Yukon and people know the CCI and the University of Alberta because of the CCI. Part of that is our history—more than 50 years means the CCI has an institutional memory of things—and also that so many students and researchers out in the world are connected back to the university through the CCI."

# talks & events

Talks & Events listings do not accept submissions via fax, mail, email or phone. Please enter events you'd like to appear in folio and at www.news.ualberta.ca/events. A more comprehensive list of events is available online at www.events.ualberta.ca. Deadline: noon one week prior to publication. Entries will be edited for style and length.

### **UNTIL APRIL 5**

Tenses & Pizza. The Centre for Writers invites everyone every Thursday for a fee workshop on the English language. 2–3 p.m. 1-23 Assiniboia Hall. www.c4w.arts. ualberta.ca.

### MARCH 17, 21-24

Bonjour, Là, Bonjour. This production explores the connections that occur between family members when issues of love, sexuality, identity and addiction become intertwined. 7:30–9:30 p.m. Augustana Campus Theatre, Camrose. Tickets are \$15, \$5 for students.

### MARCH 18

Camrose & District Community Band in Concert. Performing a variety of selections, from standard concert band literature and marches, to jazz and movie themes. 2–3 p.m. Augustana Campus.

# MARCH 19

Inaugural Engineering Art Show.
"Spaces" is an art exhibit open to all
engineering students, faculty and professionals featuring artistic creations of
every type. 10–11 a.m. Various location in
Faculty of Engineering buildings.

Monday Noon Music. Convocation Hall.

Confucianism and Soft Power: Why Ancient Thought Doesn't Work for Modern Diplomacy. Sam Crane, professor in the Department of Political Science at Williams College, will be on hand to examine the limitations of Confusianism on China's foreign policy. 5–6 p.m. 358 Pembina Hall.

**Contempo New Music Ensemble.** This ensemble is dedicated to showcasing both classic 20th century and cutting-edge repertoires. 7–9 p.m. Convocation Hall.

### MARCH 20

Shedding Light on Works Outside the Canon. Selected piano works by Prokofiev, Brahms and Bartok. 7–9 p.m. Convocation Hall.

### MARCH 21

Rural Communities in Alberta and Canada: The Three Pillars of Sustainability. Join Lars Hallström and Shauna Feth as they explore the social, economic and environmental factors that make up, affect and change in rural Alberta. 4:30–6:45 p.m. U of A Calgary Centre, 120 333 5 Ave S.W., Calgary.

## MARCH 22

2012 President's State of the University Address. Please join President Indira Samarasekera for this discussion. Please register online at www.president. ualberta.ca/2012stateoftheuniversity. 12:30–1:30 p.m. L1-490 ECHA.

Pysanka (Ukrainian Easter Egg) Workshop. For reservations email Peter. holloway@ualberta.ca. 1:30–3:30 p.m. Humanities Centre HC 2-41.

U of A Campus Data Summit. Establishing the future of data stewardship at the U of A. www.library. ualberta.ca/studenttraining/section/index cfm?cid=191. Noon-2 p.m. 1-190 ECHA.

Political Manipulations in Ukraine's Presidential Elections, 2004-05 & 2009-10. This lecture is presented by Andriy Kruglashov, professor in the Department of Political Science and Public Administration, National University of Chernivtsi, Ukraine. 3–5 p.m. 243 Central Academic Building.

Global Health and Engineering. David Zakus, director of global health with the ECHA, will be speaking on the impact of engineering on the well-being of others. 4:30–5:30 p.m. NREF 1-003.

Hear's to Your Health presents Ensemble made in Canada Piano Quartet. This concert series offers free admission to classical music concerts for frazzled hospital workers as well as the general public. 5–7 p.m. Walter C. Mackenzie Health Sciences Centre.

Sustainability Speaker Series — Maude Barlow. Water rights advocate and environmentalist Maude Barlow will be on hand to discuss Blue Covenant: The Global Water Crisis and the Fight for the Right to Water. Tickets are \$5. 7–9 p.m. Myer Horowitz Theatre.

### MARCH 23

The Enterprise Quartet with visiting guests The University of Calgary String Quartet. Noon–1 p.m. Winspear.

Winter through Roman Eyes. As part of the U of A Museums' Cool Stuff exhibit, hear Jeremy Rossiter, history and classics professor, and curator of the W.G. Hardy Museum of Antiquities, speak about winter in Ancient Rome. Noon—12:45 p.m. 1-200, Enterprise Square.

### MARCH 24

SnowBrawl 2012. This snowball fight to battle breast cancer is looking for 16 teams of seven or more people to come out and fight for a great cause. \$10 per person. 10 a.m.—5 p.m. CCIS Quad.

## MARCH 25

Music at Winspear presents U of A Opera Performance. The U of A Opera presents "Orphee aux Enfers," or "Orpheus in Hades," an opera bouffe in three acts. 3–6 p.m. Winspear.

Sangkor (Augustana's Women's Choir). Choir welcomes special guest Blue Thistle to present their spring concert. 7–9:30 p.m. Augustana. Tickets \$16 adults, \$12 students/seniors, \$40 family.

### MARCH 26

Monday Noon Music. Convocation Hall.

2012 Empey Lecture. Carolyn Cowan and Philip Cowan, professors emeriti at the University of California, Berkeley, will present this lecture on Strengthening Couple Relationships and Father's Involvement: Good for Parents and Children. 5–6 p.m. 150 Telus Centre.

### MARCH 27

**TED Talks @ Lunch.** Bring your lunch and be inspired by some of the world's most fascinating thinkers and doers as they present the talk of their lives. Noon–1 p.m. 2-926, Enterprise Square.

### **MARCH 29 & 30**

Celebrating Lifelong Learning in our Communities Conference. This signature event of the Faculty of Extension Centenary will highlight vast and creative learning opportunities and experiences. To register, go to clloc2012.blogspot.com/p/2012.html.

### MARCH 29 - APRIL 7

Studio Theatre presents, "Whisper." In a barren wasteland, where murder goes unpunished, and criminals reap their stolen rewards, indifference and apathy rule the day. One young man must make a choice before all he once loved crumbles to dust. Timms Centre. 7:30 p.m.

# MARCH 29

Evidenced based practice of sports concussions. Martin Mrazik, educational psychology professor, will be on hand to discuss his current research on the impact tof concussions. Noon–1p.m. 128 Education South.

Curating Cool Stuff. Join Jim Corrigan, curator of the U of A Art Collection, as he presents the final free lecture of the U of A Museums' Cool Stuff noonhour series. Noon–12:45 p.m. 1-200, Enterprise Square. Workplace Safety: Innovative Practices and Strategies for Critical Safety Thinking. Panel presenters from Alberta industry will be on hand to share practices and strategies to train workers to identify, predict and prevent hazardous situations in the workplace. 3:30–5 p.m. 122 Education South.

World Music Week. Join the Middle Eastern and North African Music Ensemble for a showcase performance primarily from the Arab world. 7–10 p.m. Convocation Hall.

Managing moose populations by the seat of your pants. Please join us in celebrating the reappointment of Mark Boyce, Alberta Conservation Association chair in fisheries and wildlife. Boyce will talk about how moose populations are managed. 7:30–8:30 p.m. L2-200 CCIS.

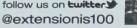
# MARCH 30

World Music Week. Join The Indian Music Ensemble for a performance showcase rooted in classical Indian music. 7–10 p.m. Convocation Hall.

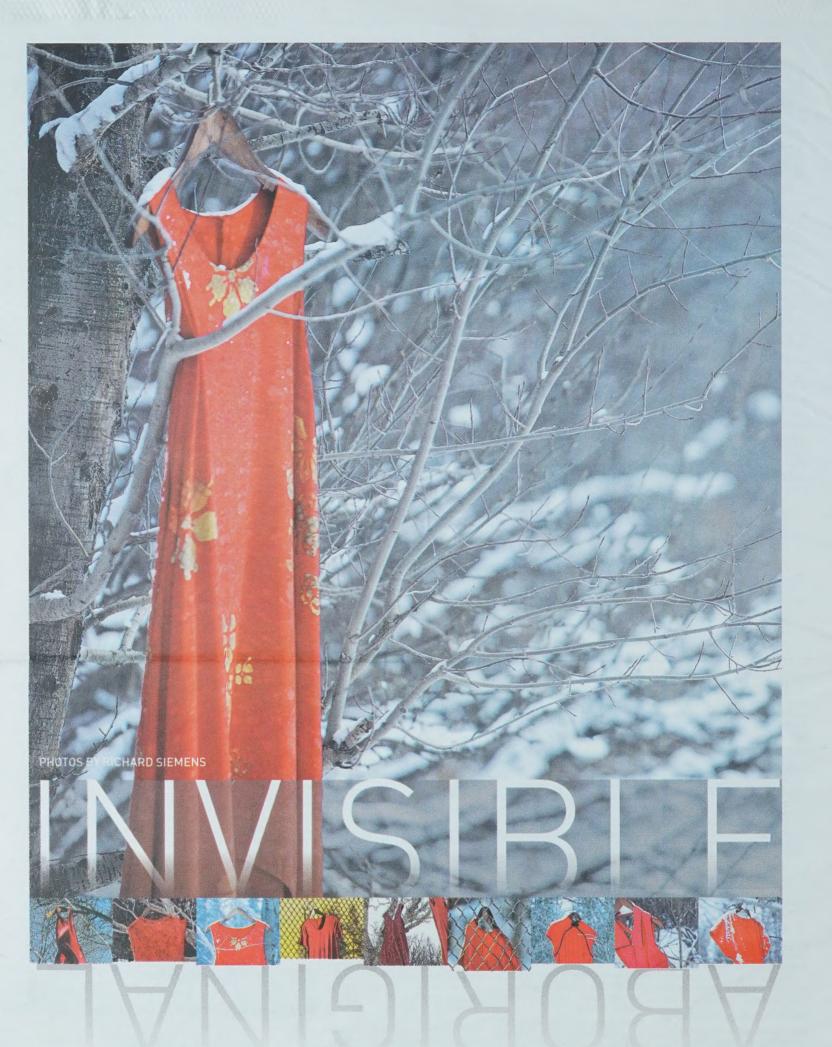
# UNIVERSITY OF ALBERTA | 1912 | 2012 | TWEET! It took 100 men with shovels to dig the basement of Assinibola Hall in 1911. In 1912, Extension was founded and its offices were in that basement. 100 men, 100 years... Just coincidence?

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In honour of International Women's Day March 8, red dresses were hung around the University of Alberta North Campus as a visual representation of the 600 Aboriginal women who have been murdered or have gone missing in Canada in the past 20 years. The installation, entitled The REDress Project, is the inspiration of Métis artist Jaime Black. This event was sponsored by the faculties of arts, law and native studies.

BackPage